

The *depth of snow on ground at end of month* was reported as follows:—In Maine, from 3 to 10 in.; New Hampshire, 2 to 10 in. on the low-lands and 12 to 36 in. on the summit of Mt. Washington; Vermont, 1 to 12 in.; New York, trace to $\frac{1}{2}$ in. in the interior; Lower Lake region, trace to $\frac{1}{2}$ in.; West Virginia, trace; Michigan, $\frac{1}{2}$ to $\frac{1}{2}$ in. in the interior; Upper Lake region, $\frac{1}{2}$ in. at Alpena to 20 in. at Duluth; Wisconsin, trace to $8\frac{1}{2}$ in.; Minnesota, $1\frac{1}{2}$ to 6 in.; Iowa, $\frac{1}{2}$ to $2\frac{1}{2}$ in.; Nebraska, trace to $1\frac{1}{2}$ in.; Dakota, $\frac{1}{2}$ to $2\frac{1}{2}$ in.; Wyoming Territory, 2 in.; Colorado, 3 to 24 in. on the low-lands and 6 to 45 in. on the summit of Pike's Peak; New Mexico, 1 in.; Nevada, trace to 3 in.

Floods.—New Orleans, La., 30th, high water damaged the levee both above and below the city.

RELATIVE HUMIDITY.

The percentages of mean relative humidity for the month range as follows: New England, 70 to 84; Middle Atlantic States, 72 to 85; South Atlantic States, 71 to 88; Eastern Gulf States, 72 to 81; Western Gulf States, 67 to 81; Lower Lake region, 70 to 80; Upper Lake region, 66 to 80; Ohio valley and Tennessee, 60 to 74; Upper Mississippi valley, 66 to 74; Missouri valley, 62 to 83; Red River of the North valley, 92 to 95; Eastern Rocky Mountain Slope, 49 to 63; Texas, 22 at Stockton to 75 at Brackettsville and Laredo; Western Plateau, 40 at Yuma to 65 at Boise City; California, 65 to 80; Oregon, 69 to 82. *High stations* report the following averages not corrected for altitude: Mt. Washington, 86.5 per cent. Pike's Peak, 52.4; Denver, 39.8; Cheyenne, 38.7; Virginia City, 53.3; Santa Fe, 44.6.

WINDS.

The *prevailing direction of the winds* for the month is shown by arrows flying with the wind, on chart No. II. In general they agree with what might be expected from the distribution of pressure, being *north-erly* along the Atlantic coast and in the extreme Northwest; *southerly* from the Gulf coast to the Lakes, over the Plateau districts, in the Sacramento valley, Oregon and Washington Territory; at San Diego and San Francisco the prevailing wind was northerly. The *maximum velocities*, as recorded by self-registers, have been noted in the description of high and low areas. The *maximum* on the summit of Pike's Peak SW. 95 miles occurred on the 8th, and on the summit of Mt. Washington, NW. 138 miles on the 10th, both of them during the passage of low area No. V.

Total Movements of the Air.—The following are the *largest* total movements recorded in miles at the Signal Service stations during the month: On the summit of Pike's Peak, 21,238 miles; Cheyenne, 11,789; Cape Lookout, N. C., 11,181; Thatcher's Island, Mass., 11,081; Portsmouth, N. C., 10,734; Kittyhawk, N. C., 10,574; Milwaukee, 10,330; Sandusky, 10,142; Sandy Hook, 9,911; Cape Hatteras, 9,587; Cape May, 9,425; Key West, 9,110; Barnegat, N. J., 8,987; Burlington, Vt., 8,867; Eastport, 8,798; Cape Henry, 8,788; North Platte, 8,769. The *smallest* are La Mesilla, N. M., 1,541 miles; Nashville, Tenn., 1,692; Visalia, Cal., 1,871; Lynchburg, Va., 1,958; Uvalde, Tex., 2,263; Augusta, Ga., 2,380; Socorro, N. M., 3,031; El Paso, Tex., 3,119; Davis, 3,137; Los Angeles, Cal., 3,214; Silver City, N. M., 3,231; Montgomery, 3,254; San Antonio, 3,274; Salt Lake City, 3,516; La Crosse, 3,520.

Sand Storms.—Burkes, Ariz., 26th, 27th.

VERIFICATIONS.

Indications.—The detailed comparison of the tri-daily indications for January, with the telegraphic reports for the succeeding twenty-four hours, shows the general percentage of verifications to be 84.4 per cent. The percentages for the four elements are: Weather, 86.9; Direction of the Wind, 83.2; Temperature, 84.5; Barometer, 82.7 per cent. By geographical districts they are: for New England, 85.8; Middle States, 85.8; South Atlantic States, 84.4; Eastern Gulf States, 80.7; Western Gulf States, 80.7; Lower Lake region, 84.3; Upper Lake region, 87.8; Tennessee and the Ohio valley, 84.9; Upper Mississippi valley, 84.9; Lower Missouri valley, 82.7; Northern Pacific region, 84.7; Central Pacific coast region, 90.3; Southern Pacific coast region, 96.0. There were 10 omissions to predict out of 3,813, or 0.26 per cent. Of the 3,803 predictions that have been made, 156, or 4.10 per cent, are considered to have entirely failed; 129, or 3.39 per cent, were one-fourth verified; 471, or 12.39 per cent, were one-half verified; 421, or 11.07 per cent, were three-fourths verified; 2,626, or 69.05 per cent, were fully verified, so far as can be ascertained from the tri-daily weather maps.

Cautionary Signals.—160 Cautionary Signals were displayed during the month, of which 119, or 74.4 per cent., were justified by winds of 25 miles per hour or over at, or within a radius of 100 miles of the station. 46 Off-shore Signals were displayed, of which 40, or 87.0 per cent, were fully justified; 42, or 91.3 per cent, were justified as to direction; 41, or 89.1 per cent, were justified as to velocity; and 3, or 6.4 per cent, were not justified either as to direction or velocity. 29 of the Off-shore were changed from Cautionary. 206 Signals of both kinds were displayed, of which 159, or 77.0 per cent, were fully justified. The above does not include signals ordered for 50 display stations, where the velocity is only estimated. 48 cases of winds of 25 miles and over per hour, from scattering stations, were reported, and for which signals had not been ordered. Eight signals were reported late.